

**REMARKS**

In the Office Action the Examiner noted that claims 39-62 are pending in the application. The Examiner objected to the drawings, rejected claims 39-44, 46-53, and 56-62, and objected to claims 45, 54, and 55. By this Amendment, claims 40, 47, and 48 have been cancelled without prejudice or disclaimer, and claims 39, 41, 46, 49, 52, 54, and 56-62 have been amended. No new matter has been presented. Thus claims 39, 41-46, and 49-62 are pending in the application. The Examiner's rejections are traversed below, and reconsideration of all rejected claims is respectfully requested.

**Objections To Drawings**

In item 1 on page 2 of the Office Action the Examiner objected to Figure 2, stating that the reference character "RF" should be labeled as "R<sub>F</sub>". Figure 2 has been amended to include this change suggested by the Examiner, and the Applicant respectfully requests that the objection to Figure 2 be withdrawn.

In item 2 on pages 2-3 of the Office Action the Examiner objected to Figure 1 because the reference character R<sub>3</sub> is not mentioned in the description of the present invention. The specification has been amended so that this reference character is explained in the description of the present invention.

**Claim Rejections Under 35 USC §102**

In item 4 on pages 3-4 of the Office Action the Examiner rejected claims 39-44 under 35 U.S.C. §102(b) as being anticipated by Uchida et al. (JP 05-249777). The Applicant respectfully traverses the Examiner's rejection.

The Examiner states that Uchida discloses "a first determination element R1 determining a type of the consumable product (abstract and paragraph [0018]; [and] a second determination element D determining whether the consumable product is a new consumable product (abstract and paragraph [0026])." Figure 1 of Uchida shows that R1 and D are connected in parallel with two respective common nodes. Therefore, the consumable product unit 2 in Uchida is connected to the electrophotographic image forming apparatus 1 by only two ports, with each port connected to the respective ends of both R1 and D.

Claim 39 of the present application, as amended, recites, in part:

“a first determination element determining a type of the consumable product; and  
a second determination element determining whether the consumable product is  
a new consumable product;  
wherein the first determination element has at least one end that is not commonly  
connected to the second determination element.”

Therefore, the first determination element of the consumable product unit of claim 39 of the present application has at least one end that does not share a common connection with the second determination element. In other words, a signal can be transmitted through the first determination element without being transmitted through the second determination element, and vice versa. Therefore, a signal may be sent to melt and therefore disconnect one of the first or second determination elements, and the signal will not be sent through the remaining first or second determination element. This is in direct contrast to Uchida, in which R1 and D are commonly connected at both respective ends, and any signals have to pass through both elements while both elements are intact.

Therefore, Uchida does not disclose first and second determination elements “wherein the first determination element has at least one end that is not commonly connected to the second determination element.” Accordingly, Uchida does not disclose every element of the Applicant’s claim 39. In order for a reference to anticipate a claim, the reference must teach each and every element of the claim (MPEP §2131). Therefore, since Uchida does not teach the features recited in independent claim 39, as stated above, it is respectfully submitted that claim 39 patentably distinguishes over Uchida, and withdrawal of the §102(b) rejection is earnestly and respectfully solicited.

Claim 40 has been cancelled without prejudice or disclaimer.

Claims 41-44 depend from claim 39 and include all of the features of that claim plus additional features which are not taught or suggested by Uchida. Therefore, it is respectfully submitted that claims 41-44 also patentably distinguish over Uchida.

In item 5 on pages 4-6 of the Office Action the Examiner rejected claims 46-53 and 56 under 35 U.S.C. §102(b) as being anticipated by Uchida.

Claim 46 of the present application, as amended, recites:

wherein each of the consumable product units comprises:  
a first determination element determining the type of consumable product,  
a second determination element determining whether a respective  
mounted consumable produce is a new consumable product,  
wherein the first determination element has at least one end that is not  
commonly connected to the second determination element.

Therefore, it is respectfully submitted that claim 46 also patentably distinguishes over Uchida, and withdrawal of the §102(b) rejection is earnestly and respectfully solicited.

Claims 47 and 48 have been cancelled without prejudice or disclaimer.

Claims 49-53 and 56 depend from claim 46 and include all of the features of that claim plus additional features which are not taught or suggested by Uchida. Therefore, it is respectfully submitted that claims 49-53 and 56 also patentably distinguish over Uchida.

In item 6 on pages 6-7 of the Office Action the Examiner rejected claims 58-61 under 35 U.S.C. §102(b) as being anticipated by Uchida.

Claim 58 of the present application, as amended, recites first and second determination elements "wherein the first determination element has at least one end that is not commonly connected to the second determination element." Therefore, it is respectfully submitted that claim 58 also patentably distinguishes over Uchida, and withdrawal of the §102(b) rejection is earnestly and respectfully solicited.

Claims 59-61 depend from claim 58 and include all of the features of that claim plus additional features which are not taught or suggested by Uchida. Therefore, it is respectfully submitted that claims 59-61 also patentably distinguish over Uchida.

In item 7 on pages 7-8 of the Office Action the Examiner rejected claim 62 under 35 U.S.C. §102(b) as being anticipated by Uchida.

Claim 62 of the present application, as amended, recites "a consumable unit including a plurality of resistive elements, wherein one of the resistive elements has at least one end that is not commonly connected to the remainder of the resistive elements." Therefore, it is respectfully submitted that claim 62 also patentably distinguishes over Uchida, and withdrawal of the §102(b) rejection is earnestly and respectfully solicited.

#### Claim Rejections Under 35 USC §103

In item 9 on pages 8-11 of the Office Action the Examiner rejected claims 46-53, 56, and 57 under 35 U.S.C. §103(a) as being unpatentable over Hayashi et al. (JP 08-262832) in view of Uchida.

Claims 47 and 48 have been cancelled without prejudice or disclaimer.

As discussed in the previous section of this Amendment, independent claim 46 patentably distinguishes over Uchida. Further, at least the discussed deficiencies of Uchida are

not cured by Hayashi. Therefore, claim 46 also patentably distinguishes over the combination of Uchida and Hayashi. Further, claims 49-53 and 56 depend from claim 46, and therefore also patentably distinguish over the combination of Uchida and Hayashi.

#### Allowable Subject Matter

In item 10 on page 11 of the Office Action the Examiner objected to claims 45, 54, and 55 as being dependent upon a rejected base claim, but indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 45 depends from claim 39, and claims 54-55 depend from claim 46. As previously discussed, claims 39 and 46 patentably distinguish over Uchida and/or the combination of Uchida and Hayashi. Therefore, claims 45 and 54-55 also patentably distinguish over uchida and/or the combination of Uchida and Hayashi.

#### Summary

In accordance with the foregoing, the specification, drawings, and claims 39, 41, 46, 49, 52, 54, and 56-62 have been amended. Claims 40, 47, and 48 have been cancelled without prejudice or disclaimer. No new matter has been presented. Thus, claims 39, 41-46, and 49-62 are pending and under consideration.

There being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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**AMENDMENTS TO THE DRAWINGS:**

The attached drawing includes a change to FIG. 2. The sheet containing FIG. 2 replaces the original sheet including FIG. 2.

In item 1 on page 2 of the Office Action, the Examiner objected to the drawings. In order to overcome these objections, replacement figures are submitted herewith. In FIG. 2, item S240 has been amended so that the reference character "RF" is correctly represented as "R<sub>F</sub>". Approval of these changes to the Drawings is respectfully requested.